

# Professional Presentations: Factors that Influence Oral Presentations of Engineers in Engineering Workplace of Pakistan

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## Abstract

Oral presentation has become an important aspect of modern workplace and engineers usually perform oral presentations to keep management of the organization well informed about progress of company projects. This study examined factors that influenced effective oral presentation performance of engineers at workplace. Six engineers from 2 engineering organizations of Pakistan participated in this study. Purposive sampling was used since engineers with 5 years work experience were selected as participants for this study. All presentations were recorded to capture barriers that hampered effective oral presentation performance of engineers. Data were analyzed qualitatively through an assessment rubric. It contained four traits such as presentation skill, confidence, nervousness and vocal variety. Three assessors assessed these presentations to overcome researcher bias. The results of the study revealed that poor presentation skill, poor confidence and nervousness hindered effective oral presentation performance of engineers. The findings of the study would contribute to prepare better future engineers for modern industry.

**Keywords:** Barriers, oral presentations, engineers, engineering workplace

## 1. Introduction

Engineering organizations today conduct business in a highly competitive work environment. Thus, they require well rounded engineers trained in technical and non technical skills to run business of organizations profitably. No doubt, engineers equipped with effective oral presentation skills perform workplace jobs efficiently that leads towards workplace productivity of organizations. On the other front, engineers equipped with poor oral presentation skills harm interests of organizations at a large measure. In this perspective, engineering profession demands from engineering graduates to be equipped with effective communication skills such as oral presentation skills. The purpose of this research was to investigate factors that influenced effective oral presentation performance of engineers at workplace which is never in the better interest of modern organizations.

## 2. Literature Review

Effective communication skills have become important skills for engineers' to perform workplace jobs effectively in this competitive work environment of organizations. Employers' consider communication skills more important than technical skills (McPherson, 1998). On the other hand, organizational influences such as increased competition continuously pressurize engineers to play diverse roles (Farr, 1996) at workplace. Effective oral communication skills are required skills to be successful in any profession (Luthy, 2006) and research over the years indicates that oral presentation is an important skill for engineers at workplace. Research has found that engineers usually perform oral presentations (Hafizoah Kassim et al., 2010) at workplace. In this perspective, they need to be proficient in oral presentations (Bhattacharyya et al., 2009). A study revealed that 78% engineers often were required to perform oral presentations at workplace (Keane, 1999). Truly speaking, effective communication, oral communication and presentation skills make an engineer distinct from other engineers at workplace. The engineer of 21st century should be different from past decade engineers (Radzuan et al., 2008) in terms of skills and knowledge. Industry demands engineers equipped with effective oral presentation skills with changing nature of workplace to run business of organizations productively. A recent study investigating time spent by young graduates revealed that around 60% of their time graduates spend in communication with people at workplace (Trevelyan and Tilli 2008). Moreover, recent

graduates have been found to spend around 64% of time in oral communication (Meier, Williams et al. 2000; Sageev and Romanowski, 2001) at workplace.

Engineering graduates have to communicate and function effectively in national and international environments (European Accreditation of Engineering Programmes, 2008). Thus, working in a global work environment demands effective oral presentation skills of engineers. According to Reimer (2002) lack of communication skills serves to undermine whole profile of a professional engineer. The skills required in engineering profession at global level are widespread ranging from oral presentations and conversations (Gomleksiz, 2007). This tends to be surprising although oral presentation play important role for engineers at workplace but engineers usually lack in this skill at workplace. Many engineers may possess strong quantitative skills but they have been found weak in oral communication skills (Batley, 1998) such as oral presentation skills. Chen (2006) studied communication needs of Chinese technical personnel in different engineering fields such as mechanics and electrical engineering. This study results revealed that speaking was considered the most difficult skill for engineers and it was the skill they desired to improve.

In fact, engineers need effective oral presentation skills to present information about company projects at workplace. The official language of Pakistan is English since colonial rule and engineers need to present oral presentation in English language. Thus, oral presentations of engineers of Pakistan are not without barriers that influence their effective oral presentation performance. Resultantly, poor oral presentations affect workplace productivity of engineering organizations of Pakistan. Engineers tend to complain to be weak in communication skills because the major focus of engineering universities of Pakistan is on technical knowledge and skills of engineering students. On the other front, employers' value communication skills (Zedeck & Goldstein, 2000) of engineering graduates and in certain instances they demand from engineering graduates during job interviews to perform 5 minute oral presentations. Oral presentations play significant role in engineers' career opportunities (Fatimah, Noor Raha & Hafizoah, 2006) despite communication skills of engineering graduates fall short as per employers' expectations (Vest, D. Long et al., 1995). In addition, research has identified that engineers face communication barriers giving presentations in seminars, conferences and the workplace (Kedrowicz, 2006; Orr et al., 2005; Freeman, 2003; King, 2002; Polack-Wahl, 2000).

Oral presentations require confidence and determination to speak in front of familiar and unfamiliar audience. It has been best seen that speakers usually fail to develop audience interest in briefings, seminars, conferences and company presentations. Confidence is an important aspect of any effective presentation and it provides impetus to speakers to communicate effectively. No doubt, due to confidence speakers maintain eye communication with audience during presentation. Audience like confidence of speakers (Wardrope et al., 1994) and for many speakers oral presentation is just like fear of death (Glossophobia, 2001). Truly speaking, poor confidence affects employee job performance at workplace. As a result, organizations require employees with confidence (Dam et al., 2004). On the other hand, poor presentation skill also affects oral presentation performance of engineers. Katz (1993) interviewed professionals from industry, they responded communication skills of graduates are not good; they are less than not good, they are really bad. Moreover, the inability to communicate can hamper graduates to be hired for workplace jobs (Zeigler, 2007). Miller (2005) indicated that speakers are never judged only from communication but by the image they transfer during communication performance. This is because; nervousness leaves negative impact on oral presentation performance (Tisdale, 2005) of engineers. Researchers have found that out of 20 persons 1 person suffers from communication apprehension (Sprague and Stuart, 2003). In addition, Richmond et al. (1995) reported that between 70 to 75% individuals fear from oral communication performance. In this perspective, engineers should practice oral presentations to be proficient in oral presentations to perform workplace jobs effectively according to employer satisfaction.

### **3. Methodology**

The research approach used for this study was based on qualitative methods in terms of recording of oral presentations. Recordings provided better platform to assess factors that influenced effective oral presentation performance of engineers at workplace.

#### **3.1 Sample**

Six (6) engineers from 2 engineering organizations of Pakistan participated in this study. Purposive sampling was

used since respondents were drawn on specific criteria of engineers with minimum 5 years work experience. Creswell et al. (2007) stated that purposive sampling assists researchers to select suitable respondents for the study.

### **3.2 Instruments**

The instruments used for this study were recording of oral presentations. Participants selected topic of presentation according to their own choice. In other words, it was a prerequisite demand of engineers. The main actors for this oral activity were engineers and there was no participation of this researcher except recording of oral presentations.

### **3.3 Participant Characteristics**

All participants were full time engineers and were selected from the discipline of electrical and mechanical engineering.

## **4. Data Analysis**

Although data were analyzed qualitatively, but results have been presented quantitatively in terms of percentages for each factor that influenced effective oral presentation performance of engineers. A structured assessment rubric was used to assess these factors. This assessment rubric was prepared after extensive literature review survey. The assessment rubric used for this study was partially adopted from "Impact of Digital Video on Communication skills in Business Education" (Leeds Elke M., 2007). Oral presentation traits used in Leeds (2007) study were 'credibility or confidence', 'eye contact or absence of reading', 'appearance nervous mannerisms', 'gestures or the purposeful use of the body' and 'vocal variety'. This study partially adopted assessment rubric of (Leeds Elke M., 2007) to assess factors that influenced oral presentation performance of engineers. In this perspective, oral presentation assessment rubric used for this study included 'presentation skill' (speaker communicates ideas clearly and effectively), 'confidence' (speaker appears confident and knowledgeable), 'nervousness' (presenter displays non purposeful body movements and nervous gestures) and 'vocal variety' (speaker speaks clearly, avoids verbal pauses and pronunciation problems during presentation). Additionally, a 5 point likert scale 'strongly disagree', 'disagree', 'undecided', 'agree' and 'strongly agree' was used to assess these oral presentations.

## **5. Study Results**

The research results provided valuable insights on factors that influenced effective oral presentation performance of engineers at workplace. The findings are presented in percentages on the basis of assessors' agreement and disagreement for the factors included in assessment rubric.

### **5.1 Presentation Skill**

The results for Presentation Skill indicate that 5% assessors' responses were recorded as strongly disagreed, 72% disagreed, 6% undecided, 17% agreed and 0% strongly agreed (Fig.5.1). Thus, results indicate that 72% assessors' responses were recorded in favour of disagreement with presentation skill of engineers.

### **5.2 Confidence**

The results for Confidence indicated that 0% assessors' responses were recorded as strongly disagreed, 67% disagreed, 16% undecided, 17% agreed and 0% strongly agreed (F.5.2). Thus, results indicate that 67% assessors' responses were recorded in favour of disagreement with confidence level of engineers.

### **5.3 Nervousness**

The results for Nervousness indicated that 0% assessors' responses were recorded as strongly disagreed, 17% disagreed, 0% undecided, 83% agreed and 0% strongly agreed (F.5.3). Thus, results indicate that 83% assessors' responses were recorded in favour of agreement that engineers face nervousness during oral presentation.

## **6. Discussion**

The first finding of the study was that poor presentation skill of engineers influenced effective oral presentation performance of engineers at workplace. For 'presentation skill' 72% assessors responses showed disagreement with presentation skill of engineers. Research has identified that engineers face communication barriers giving presentations in seminars, conferences and the workplace (Kedrowicz, 2006; Orr et al., 2005; Freeman, 2003; King,

2002; Polack-Wahl, 2000). Chen (2006) studied communication needs of Chinese technical personnel in mechanics, computer science and electrical engineering. The study results revealed that speaking was considered the most difficult skill for technical personnel and it was the skill they desired to improve. The second finding of the study was that poor confidence influenced effective oral presentation performance of engineers. For 'confidence' 67% assessors responses showed disagreement with confidence of engineers for oral presentation. Literature review also suggests that communication skills of engineering graduates fall short as per employers' expectations (Baldwin et al., 1979; Vest, D. Long et al., 1995) and poor confidence can hamper graduates to be hired for workplace jobs (Zeigler, 2007). The third finding of the study was that nervousness influenced effective oral presentation performance of engineers. For 'nervousness' 83% assessors responses showed agreement that engineers faced nervousness during oral presentation. Literature review suggests that between 70 to 75% individuals fear from oral communication performance (Richmond et al., 1995). It is envisaged that if oral presentation barriers of engineers are redressed they can perform better jobs and can increase workplace productivity at a large measure according to employer satisfaction.

### **7. Conclusion**

From the study carried so far it is clear that poor presentation skill, poor confidence and nervousness influenced effective oral presentation performance of engineers. Thus, employers should arrange oral presentation skill trainings for engineers to assist them to overcome barriers that influence their effective oral presentation performance. It is very clear that engineers' oral presentation barriers are never in the interest of organizations. Thus, employers should arrange oral presentation skill trainings for engineers to overcome this barrier and increase workplace productivity of organizations.

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### **Biographical Notes**

**Inayatullah Kakepoto** earned his Master of Arts (English Literature) from Shah Abdul Latif University Khairpur (Sind) Pakistan. His teaching experience is spread more than over a decade as Lecturer at Cadet College Petaro (Pakistan Navy) and as Assistant Professor Quaid-e-Awam University of Engineering Science and Technology Nawabshah (Sind) Pakistan. Currently he is a doctoral student at Universiti Teknologi Malaysia. His research interests include workplace communication, soft skills, business communication and engineering education.



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**Appendix:**

### Presentation Skill

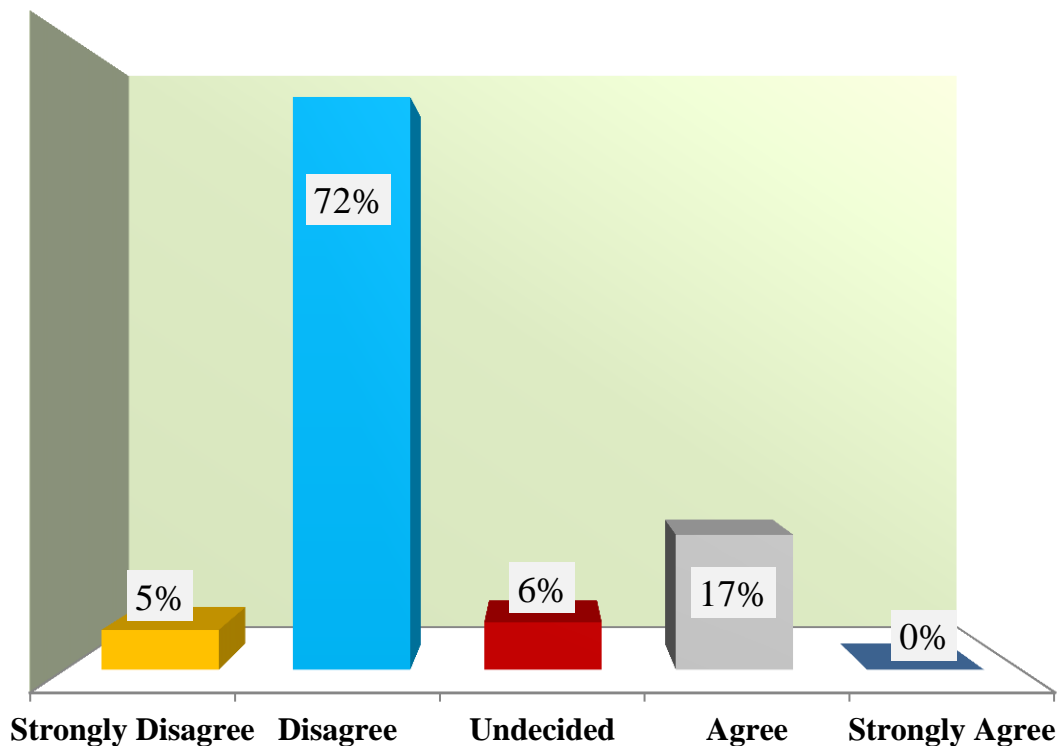


Figure 1: Assessors Agreement and Disagreement for Presentation Skill of Engineers

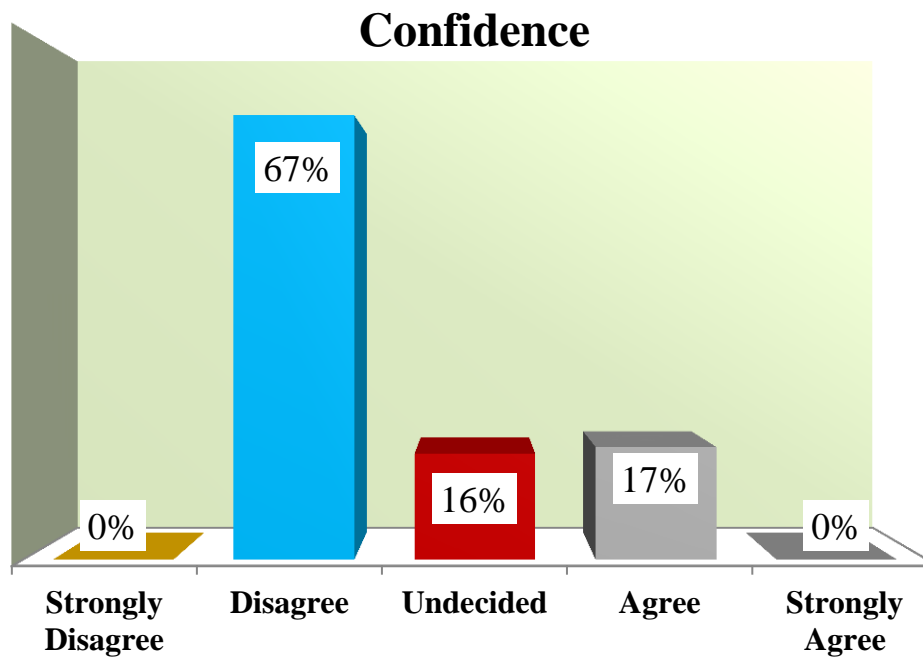


Figure 2: Assessors Agreement and Disagreement with Confidence of Engineers

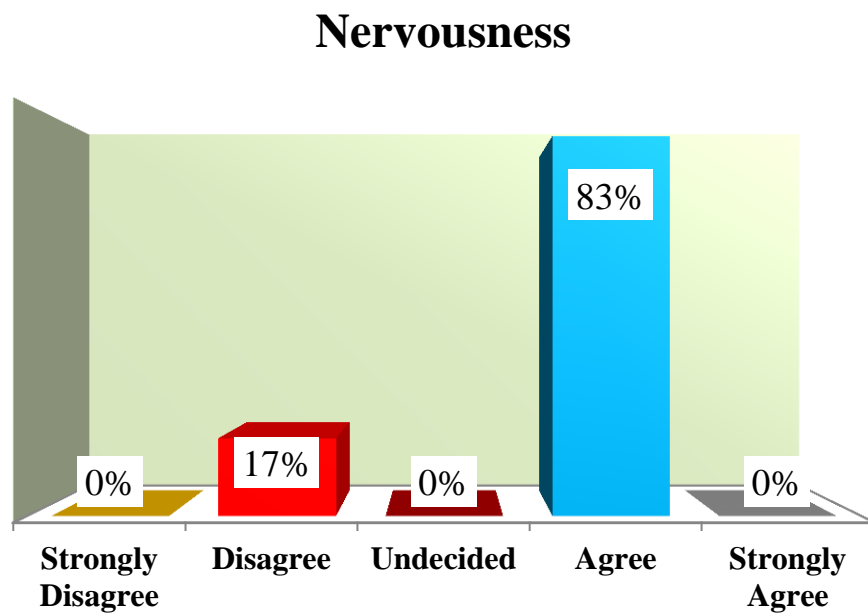


Figure 3: Assessors Agreement and Disagreement with Nervousness of Engineers